REMARKS

Claims 1-17 remain pending in the application.

Claims 1, 3-15 and 17 over Hayes

In the Office Action, claims 1, 3-15 and 17 were rejected under 35 U.S.C. §102(b) as allegedly being obvious over U.S. Pat. No. 4,087,638 to Hayes et al. ("Hayes"). The Applicant respectfully traverses the rejection.

Claims 1-9 recite a dial **buffer** adapted to contain a **plurality of tone generator commands**. Claims 10-17 recite inputting a **plurality** of tone ON commands and a plurality of tone **OFF** commands into a dial **buffer**.

Hayes teaches the VERY conventional technique such as is discussed in the background of the present invention, e.g., pages 1-6. In particular, as disclosed, the TIMING of the output of the DTMF tones is dependent upon, and controlled by, the timing of output by the controller. In the particular case of Hayes as shown in Fig. 2, a **KEYBOARD** (not shown) provides closures to read only memory 62, which in turn outputs one of sixteen possible DTMF codes to a DTMF encoder 14. (See, e.g., Hayes, col. 5, lines 34-60)

Importantly, Hayes teaches the conventional system whereby entry of further keys is PROHIBITED until the DTMF tone has been output for a given amount of time. In the case of Hayes, the output time is a full TWO SECONDS. (See col. 8, line 27) Further DTMF tones are PROHIBITED from being input to the DTMF encoder by the use of a WAIT output signal, which is driven low to enable the keyboard, and kept high to prohibit input from the keyboard. (See, e.g., Hayes, col. 5, lines 44-46; col. 5, lines 64-66 explaining the use of an LED to indicate to an operator when the DTMF encoder is ready to receive an additional keypress; col. 8, lines 24-28, where the WAIT output signal of the digital encoder 14 provides feedback for proper operation, including use of a TWO SECOND release output signal; col. 8, lines 47-49, explaining DISABLEMENT of operation of the digital encoder 14 when the DTMF tone signals attempt to communicate with a communication system that is temporarily busy, resulting in a delay in input of the next keypress.)

Hayes does NOT disclose use of a dial BUFFER as claimed by ALL claims 1-17 of the present invention, much less a dial buffer capable of containing a **plurality** of tone generator commands. At best, Hayes contains ONLY ONE DTMF tone command, and cannot accept another until that ONE DTMF tone command is completed.

For these reasons alone, claims 1-17 are patentable over the prior art of record.

Moreover, claims 1-9 further recite tone generator commands including a second command corresponding to a **mimicked release of a particular key**. Claims 10-17 recite input of a plurality of tone OFF commands.

Hayes discloses only the conventional use of an ACTUAL keypad, not a mimicked keypad as claimed by claims 1-9. Furthermore, Hayes discloses a 16 key DTMF keypad (not shown in Hayes' Fig. 2, but connected to at the upper left of the page.) Each of the DTMF keys has a tone ON associated with it. No keys are associated with a tone OFF command, so Hayes cannot disclose use of a tone OFF (i.e., null) command.

In accordance with the principles of the present invention, besides pre-defined tone digits, the dial buffer may include, e.g., an MF_EMPTY, MF_KEY or MF_OFF command. (See Specification, page 10, lines 19-27).

Accordingly, for at least these and other reasons, claims 1-17 are patentable over the prior art of record. It is therefore respectfully requested that the rejection be withdrawn.

Claims 2 and 16 over Hayes in view of well known prior art

Claims 2 and 16 were rejected under 35 U.S.C. §103(a) as allegedly being obvious over Hayes in view of well known prior art (MPEP 2144.03). The Applicant respectfully traverses the rejection.

Claim 2 recites a dial **buffer** adapted to contain a **plurality of tone generator commands**, and tone generator commands including a second command corresponding to a **mimicked release of a particular key**. Claim 16

recites inputting a **plurality** of tone ON commands and a plurality of tone **OFF** commands into a <u>dial **buffer**</u>, and input of a plurality of <u>tone OFF commands</u>.

As discussed above, Hayes fails to teach a dial **buffer** at all, much less a dial **buffer** capable of holding a <u>**plurality** of tone commands</u> as claimed by claims 2 and 16. Moreover, Hayes fails to teach a **mimicked** keypad as claimed by claim 2, or use of tone **OFF** commands as claimed by claims 2 and 16.

The Examiner alleges that it is well known in the art to use a circular dial buffer. The Applicant maintains that the use of a dial **buffer** as claimed, in combination with the other claimed elements, is novel and non-obvious. Moreover, even if it *were* to be considered well known in the art to use a *circular* buffer, even a combination of Hayes together with so-called well-known art still fails to disclose, teach or suggest a dial **buffer** capable of holding a <u>**plurality** of tone commands</u> as claimed by claims 2 and 16, a **mimicked** keypad as claimed by claim 2, or use of tone **OFF** commands as claimed by claims 2 and 16.
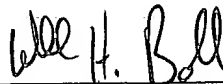
Accordingly, for at least these and other reasons, claims 2 and 16 are patentable over the prior art of record. It is therefore respectfully requested that the rejection be withdrawn.

Conclusion

Hayes teaches an old-style DTMF encoder system wherein keypad strokes are input directly through a ROM into a DTMF digital encoder 14 (See Fig. 2 of Hayes). This is nothing more than the prior art discussed in our background section, where we explain that such system requires a controller, which would emulate the keypad, to have to WAIT to input a string of DTMF keystrokes, leading to inefficiencies and timing difficulties for software engineers. The present invention, using a dial buffer, and tone generator commands that includes separate tone ON commands and tone OFF commands, which emulate a keypress on a keypad, the controller can download a string of DTMF tones into the dial buffer as fast as it would like to, then move on to other tasks. This greatly simplifies software design and improves on hardware efficiencies.

All objections and rejections having been addressed, it is respectfully submitted that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,
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